

WHAT IS CLAIMED IS:

1. A method for disrupting cells comprising:
 providing a sonic bath comprising a first liquid;
 placing into said liquid a vessel comprising cells in a second liquid; and
 5 subjecting said cells to ultrasonic energy from said sonic bath of sufficient power and
~~duration to cause disruption of said cells in the absence of beads.~~

2. ~~The method of claim 1 wherein said second liquid is at an alkaline pH.~~

3. ~~The method of claim 2 wherein the temperature of said first liquid is about 65°C to
 about 75°C.~~

10 4. The method of claim 3 wherein the cells are mycobacterial cells.

5. The method of claim 1 wherein said second liquid is exposed to a substance or
 condition which reduces the surface tension of said second liquid.

6. The method of claim 5 wherein the temperature of said first liquid is about 65°C to
 about 75°C.

15 7. The method of claim 6 wherein the cells are mycobacterial cells.

8. A method for disrupting cells by applying ultrasonic energy to a sample of cells in a
 liquid, wherein said liquid is exposed to a substance or condition which reduces the surface
 tension of said liquid.

9. The method of claim 8 wherein said liquid is contained in a vessel and said vessel is in
 20 a sonic bath comprising a second liquid.

10. The method of claim 8 wherein beads are present in said liquid.

11. The method of claim 8 wherein said liquid is at an alkaline pH.

12. The method of claim 9 wherein the temperature of said second liquid is about 65°C to
 about 75°C.

25 13. The method of claim 12 wherein the cells are mycobacterial cells.